

What is claimed is:

1. An image processing apparatus comprising:  
image entering means for reading slice data;  
image processing means for being supplied with slice data  
5 read by said image entering means and processing the supplied slice data into reconstructed image data; and  
memory means for storing data;  
said memory means comprising:  
slice data storage means for storing slice data supplied to said  
10 image processing means; and  
reconstructed image data storage means for storing reconstructed image data produced by said image processing means;  
said image processing means comprising:  
significance detecting means for determining whether the slice  
15 data stored in said slice data storage means is of significance or not;  
moved distance/tilt calculating means for calculating a moved distance and tilt of the slice data that has been detected as being of significance by said significance detecting means; and  
reconstructed image data generating means for calculating pos-  
20 sitional coordinates of a reconstructed image area to which said slice data is to be projected, based on the moved distance and tilt of the slice data which has been calculated by said moved distance/tilt calculating means, and generating reconstructed image data.
- 25 2. An image processing apparatus according to claim 1, wherein said image processing means comprises means for starting processing the

slice data if the slice data is determined to be of significance by said significance detecting means, and ending processing the slice data if the slice data is determined to be of no significance by said significance detecting means.

5        3. An image processing apparatus according to claim 1, wherein  
said moved distance/tilt calculating means comprises means for calculating  
an overall moved distance and tilt of the slice data by determining relative  
positions of a plurality of moved distance detecting windows provided for the  
slice data.

10       4. An image processing apparatus according to claim 1, wherein  
said reconstructed image data generating means comprises means for divid-  
ing each pixel of the slice data into fragments at a ratio of occupied areas  
with respect to a maximum of four pixels of said reconstructed image area  
15       onto which each pixel of the slice data is to be projected, and distributing the  
divided fragments to the pixels of said reconstructed image area, thereby  
generating the reconstructed image data.

5        5. An image processing apparatus according to claim 1, wherein  
20       said image entering means comprises a fingerprint reading sensor.

6        6. An image processing apparatus according to claim 1, wherein  
said image entering means comprises a sensor for use with a hand scanner.

25       7. An image processing apparatus according to claim 1, wherein  
said image entering means comprises a line sensor.

8. A method of processing an image, comprising the steps of:
  - storing slice data read by an image entering unit;
  - detecting significance of the stored slide data;
  - calculating a moved distance and tilt of the slide data which has been detected as being of significance;
  - calculating positional coordinates of a reconstructed image area to which said slice data is to be projected, based on the moved distance and tilt of the slice data which have been calculated, and generating reconstructed image data; and
  - storing the generated reconstructed image data.
  
9. A program for enabling a computer to process an image, comprising:
  - a first instruction set storing slice data read by an image entering unit;
  - a second instruction set for detecting significance of the stored slide data;
  - a third instruction set for calculating a moved distance and tilt of the slide data which has been detected as being of significance;
  - a fourth instruction set for calculating positional coordinates of a reconstructed image area to which said slice data is to be projected, based on the moved distance and tilt of the slice data which have been calculated, and generating reconstructed image data; and
  - a fifth instruction set for storing the generated reconstructed image data in a memory.